REMARKS

Claims 29-42 and 73-141 are pending in the present application.

It is noted that in the remarks below, the various arguments have been given headings to assist the Examiner in reconsidering the various rejections. It is further noted that the argument sub-heading "I" was intentionally skipped to avoid confusion with the Roman Numerals in the Rejection main headings.

I. REJECTION OF CLAIMS 29-42 AND 73-141 UNDER 35 U.S.C. §112

Claims 29-42 and 73-141 have been rejected under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed.

The Applicants have thoroughly reviewed the presently pending claims and have amended the claims where appropriate to enhance the particularity and distinctness of the language used to claim the subject matter which the Applicants regard as the invention. Therefore, as now amended, the presently pending claims meet all the requirements of 35 U.S.C. §112, second paragraph.

Accordingly, in view of the above amendments and remarks, the Applicants respectfully request the Examiner reconsider and withdraw this rejection under 35 U.S.C. §112, second paragraph.

II. REJECTION OF CLAIMS 92-100, 104, AND 112-127 OVER HANSEN et al.

Claims 92-100, 104, and 112-127 have been rejected under 35 U.S.C. §102(e) as being anticipated by Hansen et al. (US-A-6,254,556). This rejection of claims 92-100, 104, and 112-127under 35 U.S.C. §102(e) over the teachings of Hansen et al. is respectfully traversed.

To qualify as prior art under 35 U.S.C. §102(e), the relied upon US Patent must have a filing date that is earlier than the effective filing date of the rejected claims. In the present situation, the filing date of Hansen et al. is March 12, 1998. On the other hand, the effective US 35 U.S.C. §120 filing date of the rejected claims is March 11, 1998, with the effective US 35 U.S.C. §119 filing date of the rejected claims being August 31, 1997. Therefore, since the filing

date of Hansen et al. is subsequent to the effective US filing date of the rejected claims, Hansen et al. does not qualify as a prior art under 35 U.S.C. §102(e).

Accordingly, in view of the above remarks, the Applicants respectfully request the Examiner reconsider and withdraw this rejection under 35 U.S.C. §102(e).

III. REJECTION OF CLAIMS 29-36, 39, 40, 73-75, 78, 79, 81, 83-89, 92-95, 97-102, 105, 108, 109, 112-128, 131, 132, 135, 138, AND 139 OVER WHITNEY IN VIEW OF JP 9-182771 AND OGURI et al.

Claims 29-36, 39, 40, 73-75, 78, 79, 81, 83-89, 92-95, 97-102, 105, 108, 109, 112-128, 131, 132, 135, 138, and 139 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Whitney (US-A-4,597,384) in view of JP 9-182771 and Oguri et al. (US-A-5,938,628). This rejection is respectfully traversed.

In formulating the rejection under 35 U.S.C. § 103(a), the Examiner alleges that Whitney teaches all the claimed elements of the presently claimed invention except the intra-cell compartments and a particular inflating device. To meet these deficiencies in Whitney, the Examiner proposes to combine the teachings of Whitney with the teachings of JP 9-182771 (intra-cell compartments) and Oguri et al. (inflating device). The Examiner concludes that the combination of Whitney in view of JP 9-182771 and Oguri et al. would render the presently claimed invention obvious to one of ordinary skill in the art. This position by the Examiner is respectfully traversed.

A. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 29

With respect to amended independent claim 29, amended independent claim 29 sets forth a device for applying pressure to a body limb having a primary axis. The device, as recited in amended independent claim 29, includes first and second inflatable cells, each of the first and second cells including at least three intra-cell compartments; the intra-cell compartments being confluent, each compartment being elongated along a primary axis of a body limb and being substantially rectangular in shape when deflated and substantially cylindrical in shape when inflated, cylindrical axes of the inflated compartments substantially aligning with the primary axis of the limb, the first and second cells being longitudinally adjacent each other, and arranged

coaxially with respect to the primary axis of the limb, the first and second cells being intermittently inflatable to apply pressure to the limb, wherein the inflatable cells each comprise inner and outer shells of durable flexible material, the inner and outer shells being bonded together to form a perimetric cell bond to define the inflatable cell therebetween, the inner and outer shells being further bonded together to form compartmental bonds within the perimetric cell bond to define the plurality of intra-cell compartments, wherein the perimetric cell bond includes upper and lower perimetric cell bonds extending substantially in a lateral direction, and left and right perimetric cell bonds extending substantially in the longitudinal direction, and wherein the compartmental bonds partly extend between the upper and lower perimetric cell bonds, wherein the compartmental bonds include perforations to allow for confluent air flow between compartments within a cell, neighboring compartments along a lateral axis sharing a common border and being spatially fixed relative to each other, such that upon inflation of a cell, the cell becomes circumferentially constricted, the first and second cells being non-confluent such that the first and second cells are separately inflatable; means for laterally coupling outermost compartments so as to form ~~a~~ said sleeve substantially cylindrically; inflating means for intermittently inflating the first and second cells; and control means for determining a treatment specificity of each cell and for determining a timing sequence for inflating of each cell based on the determined treatment specificity of each cell. The sleeve has a center point circumference of $N\pi r$ when the cell is deflated and a center point circumference of $2Nr$ when the cell is inflated, where N is the number of compartments in the cell, and where r is the cross-sectional radius of each compartment when inflated, the center point circumference being a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell. The compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

The proposed combination of the Examiner is a multi-cell device with intra-cell compartments that are inflated via a pump. In contrast, amended independent claim 29 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 29 expressly sets forth that the sleeve has a center point

circumference of $N\pi r$ when the cell is deflated, and that the sleeve has a center point circumference of 2Nr when the cell is inflated, where N is the number of compartments in the cell, the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and where r is the cross-sectional radius of each compartment when inflated so as to provide for circumferential constriction without regard to the radius of the intra-cell compartment at a fractional volume of air mass. Moreover, amended independent claim 29 explicitly sets forth that the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 29 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 29 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 29 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated below in Figure '711A. It is noted that Figure '711A is Figure 2 of JP 9-182,711, as annotated by the Applicants to illustrate the deflated circumferential dimension of the intra-cell compartments.

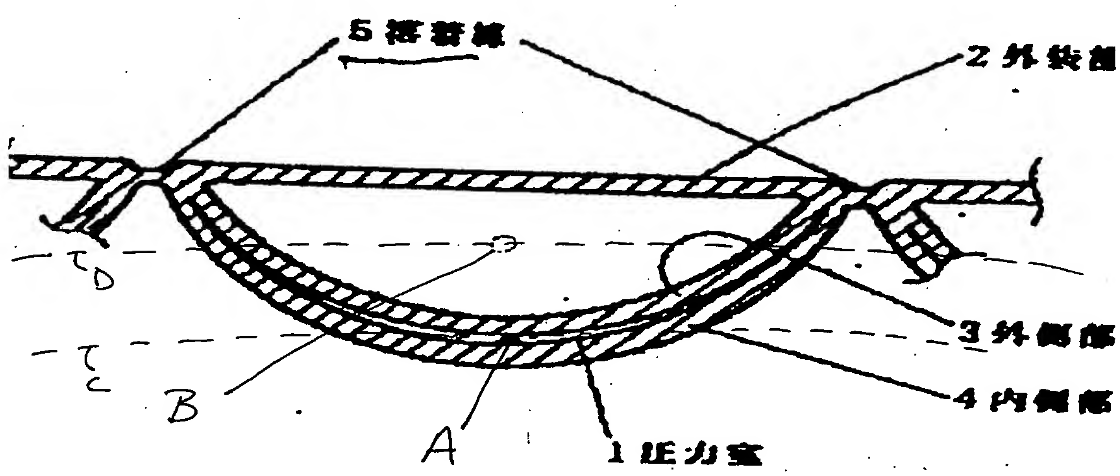

FIGURE '711 A

Furthermore, as illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated below in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B. It is noted that Figure '711B is Figure 3 of JP 9-182,711, as annotated by the Applicants

to illustrate the inflated circumferential dimension of the intra-cell compartments.

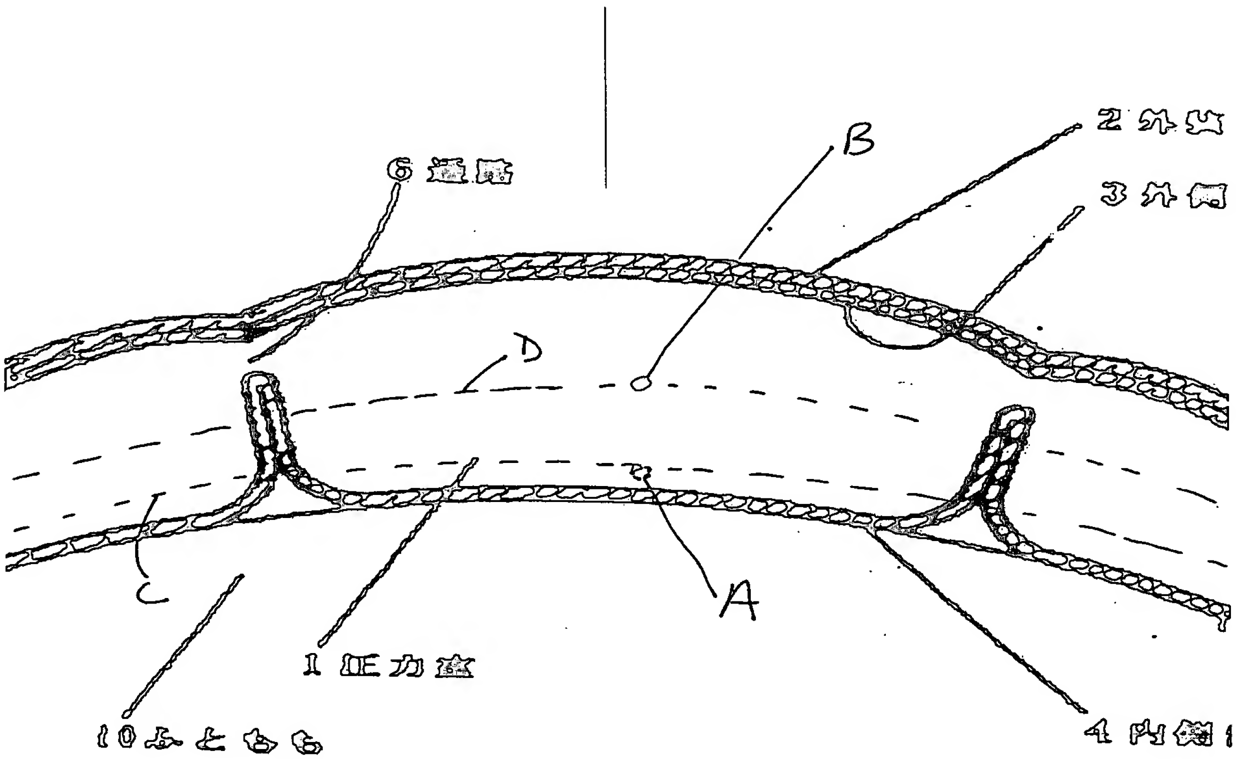

FIGURE '711B

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (D) relating to an inflated state is actually greater than the center point circumference (C) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid,

and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 29.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 29.

Lastly, in formulating the present rejection of independent claim 29, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 29. Moreover, Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 29.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended

independent claim 29:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

B. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 36

With respect to amended independent claim 36 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 36 expressly sets forth that the sleeve has a center point circumference of $N\pi$ r when the cell is deflated and a center point circumference of 2Nr when the cell is inflated, where N is the number of compartments in the cell, and where r is the cross-sectional radius of each compartment when inflated, the center point circumference being a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and that the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 36 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 36 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that

a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 36 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the <u>JP 9-182,711</u> publication, <u>JP 9-182,711</u> teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of <u>JP 9-182,711</u>, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of <u>JP 9-182,711</u>, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of <u>JP 9-182,711</u> and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 36.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 36.

Lastly, in formulating the present rejection of independent claim 36, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 36. Moreover,

Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 36.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 36:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

C. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 73

With respect to amended independent claim 73 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 73 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential

constriction.

Moreover, amended independent claim 73 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 73 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 73 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately

located at point B, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line D, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (D) relating to an inflated state is actually greater than the center point circumference (C) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 73.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation..

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the

center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 73.

Lastly, in formulating the present rejection of independent claim 73, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 73. Moreover, Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 73.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 73:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

D. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 75

With respect to amended independent claim 75 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 75 expressly sets forth that said sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell

compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 75 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 75 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 75 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication,

JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 75.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-

cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 75.

Lastly, in formulating the present rejection of independent claim 75, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 75. Moreover, Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 75.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 75:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

E. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 83

With respect to amended independent claim 83 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 83 expressly sets forth that the inflated cell of the sleeve having a first center point circumference when said intra-cell compartments are deflated and a second center point circumference when said intra-cell compartments are inflated, said second center point circumference being less than said first center point circumference so as to provide for circumferential constriction, the first and second center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction, the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

In addressing the limitations of independent claim 83 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 83 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed

functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the

compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 83.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 83.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 83:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

F. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 85

With respect to amended independent claim 85 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 85 expressly sets forth that said sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell

compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 85 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 85 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 85 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication,

JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 85.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-

cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 85.

Lastly, in formulating the present rejection of independent claim 85, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 85. Moreover, Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 85.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 85:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

G. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 87

With respect to amended independent claim 87 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 87 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 87 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 87 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 87 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance

therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates,

through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 87.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 87.

Lastly, in formulating the present rejection of independent claim 87, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 87. Moreover, Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 87.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 87:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

H. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 92

With respect to amended independent claim 92 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 92 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

In addressing the limitations of independent claim 92 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This

is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 92 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the

exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 92.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation..

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 92.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 92:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

J. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 97

With respect to amended independent claim 97 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 97 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

In addressing the limitations of independent claim 97 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 97 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement

limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the

intra-cell compartment as expressly set forth in amended independent claim 97.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 97.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 97:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

K. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 105

With respect to amended independent claim 105 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 105 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell

compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 105 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 105 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 105 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP

9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference **(D)** relating to an inflated state is actually greater than the center point circumference **(C)** relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 105.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and

with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 105.

Lastly, in formulating the present rejection of independent claim 105, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 105. Moreover, Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 105.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 105:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

L. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 112

With respect to amended independent claim 112 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 112 expressly sets forth that the sleeve has a first center point circumference when the intra-cell compartments are deflated, and that the sleeve has a second center point circumference when the intra-cell compartments are inflated wherein the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and the second center point circumference is less than the first center point circumference, and the compartmental bonds, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction so as to provide for circumferential constriction.

In addressing the limitations of independent claim 112 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 112 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 112.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design

a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 112.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 112:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

M. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 122

With respect to amended independent claim 122 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 122 expressly sets forth that the sleeve has a first center point circumference when the intra-cell compartments are deflated, and that the sleeve has a second center point circumference when the intra-cell compartments are inflated wherein the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and the second center point circumference is less than the first center point circumference, and the second center point circumference is less than the first center point circumference, and the compartmental bonds, during inflation, are drawn towards each other to decrease a distance

therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction so as to provide for circumferential constriction.

In addressing the limitations of independent claim 122 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 122 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second

center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 122.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly

set forth in amended independent claim 122.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 122:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

N. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 135

With respect to amended independent claim 135 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 135 expressly sets forth that the sleeve has a first center point circumference when the intra-cell compartments are deflated, and that the sleeve has a second center point circumference when the intra-cell compartments are inflated wherein the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and the second center point circumference is less than the first center point circumference, and the compartmental bonds, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction so as to provide for circumferential constriction.

Moreover, amended independent claim 135 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 135 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This

is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 135 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the

exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 135.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 135.

Lastly, in formulating the present rejection of independent claim 135, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 135. Moreover, Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating

of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 135.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended independent claim 135:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

O. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 30, 113 & 123

With respect to dependent claims 30, 113, and 123, the claims set forth a specific circumferential constriction value decrease of 36% upon inflation of the intra-compartment cells. In contrast, as set forth above, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion and non-compartmental bond movement during inflation to enable the taught device to apply pressure to a body limb.

More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **A**, as illustrated above in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

Furthermore, as illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point

circumference relating line **D**, as illustrated above in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference **(D)** relating to an inflated state is actually greater than the center point circumference **(C)** relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having a specific circumferential constriction value decrease of 36% upon inflation of the intra-compartment cells, as is explicitly set forth in amended dependent claims 30, 113, and 123.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended dependent claims 30, 113, and 123, the specifically claimed circumferential constriction value

decrease of 36%.

P. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 74, 81, 84, 86, 88, 93 & 98

With respect to dependent claims 74, 81, 84, 86, 88, 93, and 98, the claims set forth a specific inflated to deflated circumferential ratio value of about 0.64. In contrast, as set forth above, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion, thereby establishing an inflated to deflated circumferential ratio value of greater than 1.0, and non-compartmental bond movement during inflation to enable the taught device to apply pressure to a body limb.

More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **A**, as illustrated above in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

Furthermore, as illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated above in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates,

through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Oguri et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having a specific inflated to deflated circumferential ratio value of about 0.64, as is explicitly set forth in amended dependent claims 74, 81, 84, 86, 88, 93, and 98.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended dependent claims 74, 81, 84, 86, 88, 93, and 98, the specifically claimed inflated to deflated circumferential ratio value of about 0.64.

Q. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 94, 95, 99-101, 120, 121 & 126-128

With respect to dependent claims 94, 95, 99-101, 120, 121, and 126-128, the claims set forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In formulating the present rejections of dependent claims 94, 95, 99-101, 120, 121, and 126-128, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Oguri et al. meet this deficiency in Whitney.

Although Oguri et al. may teach a simple control system for controlling the inflation of pressure sleeves, Oguri et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 135. Moreover,

Oguri et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended dependent claims 94, 95, 99-101, 120, 121, and 126-128.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Oguri et al. fails to teach or suggest, as set forth in amended dependent claims 94, 95, 99-101, 120, 121, and 126-128:

(1) the specifically claimed determination of the treatment specificity of each cell; and/or

(2) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

R. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 31-35, 39, 40, 78, 79, 89, 102, 108, 109, 114-119, 124, 125, 131, 132, 138 & 139

With respect to dependent claims 31-35, 39, 40, 78, 79, 89, 102, 108, 109, 114-119, 124, 125, 131, 132, 138, and 139, the Applicant, for the sake of brevity, will not address the reasons supporting patentability for each of these individual dependent claims, as these claims depend directly or indirectly from the various allowable independent claims for the reasons set forth above. The Applicant reserves the right to address the patentability of each of these dependent claims at a later time, should it be necessary.

Accordingly, in view of the amendments and remarks set forth above, the Examiner is respectfully requested to reconsider and withdraw this rejection of claims 29-36, 39, 40, 73-75, 78, 79, 81, 83-89, 92-95, 97-102, 105, 108, 109, 112-128, 131, 132, 135, 138, and 139 under 35 U.S.C. §103(a) as being unpatentable over Whitney in view of JP 9-182771 and Oguri et al.

IV. REJECTION OF CLAIMS 37, 38, 41, 76, 77, 80, 90, 103, 106, 107, 110, 129, 130, 133, 136, 137, AND 140 OVER WHITNEY IN VIEW OF JP 9-182771, OGURI et al. AND CARIAPA et al.

Claims 37, 38, 41, 76, 77, 80, 90, 103, 106, 107, 110, 129, 130, 133, 136, 137, and 140 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Whitney (US-A-4,597,384) in view of JP 9-182771; Oguri et al. (US-A-5,938,628); and Cariapa et al. (US-A-5,891,065). This rejection is respectfully traversed.

As clearly set forth above, the various amended independent claims are patentable over the teachings of Whitney (US-A-4,597,384) in view of JP 9-182771 and Oguri et al. (US-A-5,938,628). Moreover, claims 37, 38, 41, 76, 77, 80, 90, 103, 106, 107, 110, 129, 130, 133, 136, 137, and 140 are directly or indirectly dependent upon the various amended independent claims. Thus, since claims 37, 38, 41, 76, 77, 80, 90, 103, 106, 107, 110, 129, 130, 133, 136, 137, and 140 depend directly or indirectly from the various amended independent and it has been demonstrated that the various amended independent claims are patentable over the cited prior art, claims 37, 38, 41, 76, 77, 80, 90, 103, 106, 107, 110, 129, 130, 133, 136, 137, and 140 must also be patentable.

Accordingly, in view of the amendments and remarks set forth above, the Examiner is respectfully requested to reconsider and withdraw this rejection under 35 U.S.C. §103(a).

V. REJECTION OF CLAIMS 42, 82, 91, 96, 104, 111, 134, AND 141 OVER WHITNEY IN VIEW OF JP 9-182771, OGURI et al. AND POLANDO

Claims 42, 82, 91, 96, 104, 111, 134, and 141 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Whitney (US-A-4,597,384) in view of JP 9-182771; Oguri et al. (US-A-5,938,628); and Polando (US-A-5,368,547). This rejection is respectfully traversed.

As clearly set forth above, the various amended independent claims are patentable over the teachings of Whitney (US-A-4,597,384) in view of JP 9-182771 and Oguri et al. (US-A-5,938,628). Moreover, claims 42, 82, 91, 96, 104, 111, 134, and 141 are directly or indirectly dependent upon the various amended independent claims. Thus, since claims 42, 82, 91, 96, 104, 111, 134, and 141 depend directly or indirectly from the various amended independent and it has been demonstrated that the various amended independent claims are patentable over the cited prior art, claims 42, 82, 91, 96, 104, 111, 134, and 141 must also be patentable.

Accordingly, in view of the amendments and remarks set forth above, the Examiner is respectfully requested to reconsider and withdraw this rejection under 35 U.S.C. §103(a).

VI. REJECTION OF CLAIMS 29-36, 39-42, 73-75, 78-105, 108-128, 131-135, and 138-141 OVER WHITNEY IN VIEW OF JP 9-182771 AND PEELER et al.

Claims 29-36, 39-42, 73-75, 78-105, 108-128, 131-135, and 138-141 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Whitney (US-A-4,597,384) in view of JP 9-182771 and Peeler et al. (US-A-5,575,762). This rejection is respectfully traversed.

In formulating the rejection under 35 U.S.C. § 103(a), the Examiner alleges that Whitney teaches all the claimed elements of the presently claimed invention except the intra-cell compartments and a particular inflating device. To meet these deficiencies in Whitney, the Examiner proposes to combine the teachings of Whitney with the teachings of JP 9-182771 (intra-cell compartments) and Peeler et al. (inflating device). The Examiner concludes that the combination of Whitney in view of JP 9-182771 and Peeler et al. would render the presently claimed invention obvious to one of ordinary skill in the art. This position by the Examiner is respectfully traversed.

A. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 29

With respect to amended independent claim 29, amended independent claim 29 sets forth a device for applying pressure to a body limb having a primary axis. The device, as recited in amended independent claim 29, includes first and second inflatable cells, each of the first and second cells including at least three intra-cell compartments; the intra-cell compartments being confluent, each compartment being elongated along a primary axis of a body limb and being substantially rectangular in shape when deflated and substantially cylindrical in shape when inflated, cylindrical axes of the inflated compartments substantially aligning with the primary axis of the limb, the first and second cells being longitudinally adjacent each other, and arranged coaxially with respect to the primary axis of the limb, the first and second cells being intermittently inflatable to apply pressure to the limb, wherein the inflatable cells each comprise inner and outer shells of durable flexible material, the inner and outer shells being bonded together to form a perimetric cell bond to define the inflatable cell therebetween, the inner and outer shells being further bonded together to form compartmental bonds within the perimetric cell bond to define the plurality of intra-cell compartments, wherein the perimetric cell bond

includes upper and lower perimetric cell bonds extending substantially in a lateral direction, and left and right perimetric cell bonds extending substantially in the longitudinal direction, and wherein the compartmental bonds partly extend between the upper and lower perimetric cell bonds, wherein the compartmental bonds include perforations to allow for confluent air flow between compartments within a cell, neighboring compartments along a lateral axis sharing a common border and being spatially fixed relative to each other, such that upon inflation of a cell, the cell becomes circumferentially constricted, the first and second cells being non-confluent such that the first and second cells are separately inflatable; means for laterally coupling outermost compartments so as to form ~~a~~ said sleeve substantially cylindrically; inflating means for intermittently inflating the first and second cells; and control means for determining a treatment specificity of each cell and for determining a timing sequence for inflating of each cell based on the determined treatment specificity of each cell. The sleeve has a center point circumference of $N\pi$ r when the cell is deflated and a center point circumference of 2Nr when the cell is inflated, where N is the number of compartments in the cell, and where r is the cross-sectional radius of each compartment when inflated, the center point circumference being a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell. The compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

The proposed combination of the Examiner is a multi-cell device with intra-cell compartments that are inflated via a pump. In contrast, amended independent claim 29 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 29 expressly sets forth that the sleeve has a center point circumference of $N\pi$ r when the cell is deflated, and that the sleeve has a center point circumference of 2Nr when the cell is inflated, where N is the number of compartments in the cell, the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and where r is the cross-sectional radius of each compartment when inflated so as to provide for circumferential constriction without regard to the radius of the intra-cell compartment at a fractional volume of air mass. Moreover, amended

independent claim 29 explicitly sets forth that the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 29 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 29 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 29 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as

illustrated below in Figure '711A. It is noted that Figure '711A is Figure 2 of JP 9-182,711, as annotated by the Applicants to illustrate the deflated circumferential dimension of the intra-cell compartments.

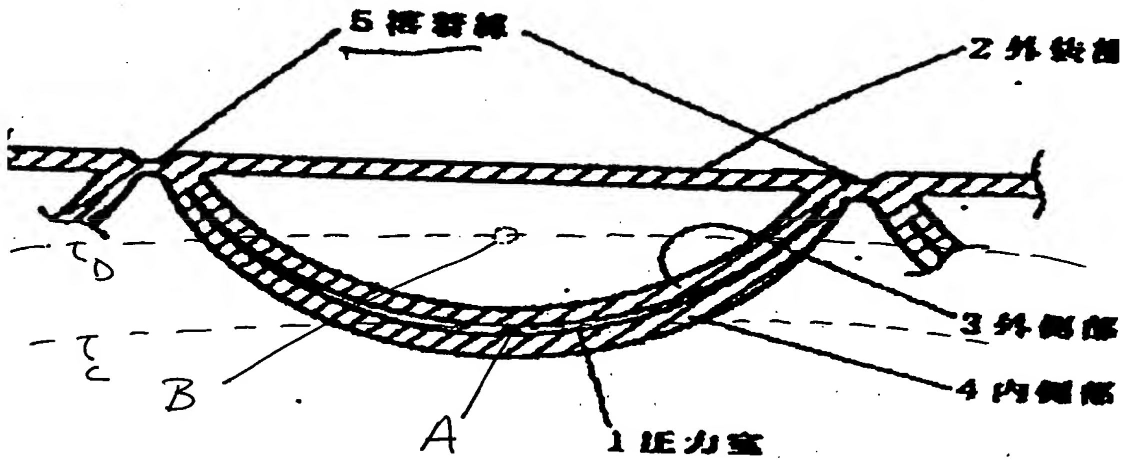

FIGURE '711 A

Furthermore, as illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated below in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B. It is noted that Figure '711B is Figure 3 of JP 9-182,711, as annotated by the Applicants to illustrate the inflated circumferential dimension of the intra-cell compartments.

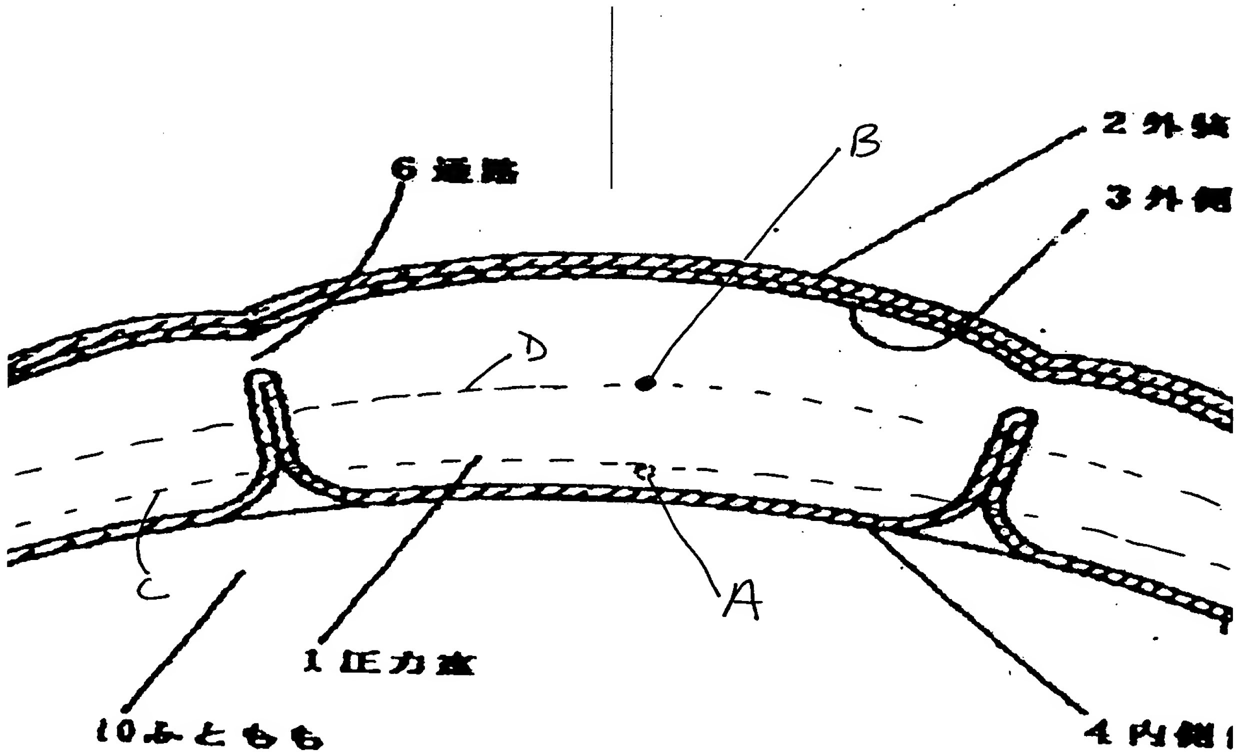

FIGURE '711B

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during

inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 29.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 29.

Lastly, in formulating the present rejection of independent claim 29, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 29. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 29.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 29:

(1) the specifically claimed inflated/deflated center point circumference

dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed determination of the treatment specificity of each cell; and/or

(4) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

B. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 36

With respect to amended independent claim 36 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 36 expressly sets forth that the sleeve has a center point circumference of $N\pi$ r when the cell is deflated and a center point circumference of 2Nr when the cell is inflated, where N is the number of compartments in the cell, and where r is the cross-sectional radius of each compartment when inflated, the center point circumference being a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and that the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 36 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 36 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 36 cannot be brushed-off as mere choices of design

because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original

Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 36.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 36.

Lastly, in formulating the present rejection of independent claim 36, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 36. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 36.

In summary, contrary to the Examiner's allegations, the proposed combination of

Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 36:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

C. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 73

With respect to amended independent claim 73 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 73 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 73 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 73 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 73 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point

circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 73.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 73.

Lastly, in formulating the present rejection of independent claim 73, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges

that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 73. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 73.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 73:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

D. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 75

With respect to amended independent claim 75 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 75 expressly sets forth that said sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line

passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 75 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 75 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 75 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in

Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference **(D)** relating to an inflated state is actually greater than the center point circumference **(C)** relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 75.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point

circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 75.

Lastly, in formulating the present rejection of independent claim 75, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 75. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 75.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 75:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

E. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 83

With respect to amended independent claim 83 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 83 expressly sets forth that the inflated cell of the sleeve having a first center point circumference when said intra-cell compartments are deflated and a second center point circumference when said intra-cell compartments are inflated, said second center point circumference being less than said first center point circumference so as to provide for circumferential constriction, the first and second center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction, the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

In addressing the limitations of independent claim 83 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 83 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement

limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the

intra-cell compartment as expressly set forth in amended independent claim 83.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 83.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 83:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

F. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 85

With respect to amended independent claim 85 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 85 expressly sets forth that said sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell

compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 85 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 85 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 85 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP

9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 85.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and

with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 85.

Lastly, in formulating the present rejection of independent claim 85, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 85. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 85.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 85:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

G. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 87

With respect to amended independent claim 87 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 87 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 87 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 87 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 87 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed

functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the

compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 87.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 87.

Lastly, in formulating the present rejection of independent claim 87, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 87. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 87.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 87:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

H. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 92

With respect to amended independent claim 92 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 92 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

In addressing the limitations of independent claim 92 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship

limitations of amended independent claim 92 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the

welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 92.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 92.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 92:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

J. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 97

With respect to amended independent claim 97 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 97 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

In addressing the limitations of independent claim 97 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 97 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction,". provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air

mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 97.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler

et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 97.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 97:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

K. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 105

With respect to amended independent claim 105 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 105 expressly sets forth that the sleeve has a first intra-cell compartment center point circumference when said intra-cell compartments are deflated and a second intra-cell compartment center point circumference when said intra-cell compartments are inflated, said second intra-cell compartment center point circumference being less than said first intra-cell compartment center point circumference so as to provide for circumferential constriction, said first and second intra-cell compartment center point circumferences, each being defined as a line

passing through each center points of each contiguous intra-cell compartment of an inflatable cell, and the compartmental bonds of said intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Moreover, amended independent claim 105 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 105 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 105 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in

Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 105.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point

circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 105.

Lastly, in formulating the present rejection of independent claim 105, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 105. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 105.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 105:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

L. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 112

With respect to amended independent claim 112 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 112 expressly sets forth that the sleeve has a first center point circumference when the intra-cell compartments are deflated, and that the sleeve has a second center point circumference when the intra-cell compartments are inflated wherein the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and the second center point circumference is less than the first center point circumference, and the compartmental bonds, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction so as to provide for circumferential constriction.

In addressing the limitations of independent claim 112 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 112 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 112.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design

a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 112.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 112:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

M. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 122

With respect to amended independent claim 122 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 122 expressly sets forth that the sleeve has a first center point circumference when the intra-cell compartments are deflated, and that the sleeve has a second center point circumference when the intra-cell compartments are inflated wherein the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and the second center point circumference is less than the first center point circumference, and the second center point circumference is less than the first center point circumference, and the compartmental bonds, during inflation, are drawn towards each other to decrease a distance

therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction so as to provide for circumferential constriction.

In addressing the limitations of independent claim 122 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 122 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second

center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 122.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly

set forth in amended independent claim 122.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 122:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion; and/or

(3) the specifically claimed inflation movement of the compartmental bonds.

N. ARGUMENTS WITH RESPECT TO AMENDED INDEPENDENT CLAIM 135

With respect to amended independent claim 135 explicitly sets forth specific structure for the intra-cell compartments and the sleeve itself. More specifically, amended independent claim 135 expressly sets forth that the sleeve has a first center point circumference when the intra-cell compartments are deflated, and that the sleeve has a second center point circumference when the intra-cell compartments are inflated wherein the center point circumference is a line passing through each center point of each adjacent intra-cell compartment of said inflatable cell, and the second center point circumference is less than the first center point circumference, and the compartmental bonds, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of said intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction so as to provide for circumferential constriction.

Moreover, amended independent claim 135 expressly sets forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In addressing the limitations of independent claim 135 directed to the circumferential dimensional relationship between inflated and deflated intra-cell compartments, the Examiner contends that the claimed shape of the intra-cell compartments and inflated/deflated center point circumferential dimensional relationship of the sleeve are mere design choices. The finding that a limitation is a mere choice of design denotes non-criticality with respect to the limitation. This

is not true with the present limitations.

The claimed inflated/deflated center point circumferential dimensional relationship limitations of amended independent claim 135 cannot be brushed-off as mere choices of design because these limitations in conjunction with the limitation, "the compartmental bonds of the intra-cell compartments, during inflation, are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction," provide the claimed functionality of circumferential constriction. The specific inflated/deflated center point circumferential dimensional relationship and compartmental bond inflation movement limitations are critical because these limitations enable the claimed device to apply pressure to a body limb without regard to the radius of the intra-cell compartment at a fractional volume of air mass.

Furthermore, with respect to the teachings and drawings of the JP 9-182,711 publication, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion to enable the taught device to apply pressure to a body limb. More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **A**, as illustrated below in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

As illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by exterior side member **3** and interior side member **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated below in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference (**D**) relating to an inflated state is actually greater than the center point circumference (**C**) relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the

exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment as expressly set forth in amended independent claim 135.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated being less than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and the compartmental bonds of the intra-cell compartments, during inflation, being drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, as is explicitly set forth in amended independent claim 135.

Lastly, in formulating the present rejection of independent claim 135, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 135. Moreover, Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating

of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended independent claim 135.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended independent claim 135:

(1) the specifically claimed inflated/deflated center point circumference dimensional relationship;

(2) the specifically claimed circumferential constriction, as JP 9-182771 specifically teaches circumferential expansion;

(3) the specifically claimed inflation movement of the compartmental bonds;

(4) the specifically claimed determination of the treatment specificity of each cell; and/or

(5) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

O. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 30, 113 & 123

With respect to dependent claims 30, 113, and 123, the claims set forth a specific circumferential constriction value decrease of 36% upon inflation of the intra-compartment cells. In contrast, as set forth above, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion and non-compartmental bond movement during inflation to enable the taught device to apply pressure to a body limb.

More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **A**, as illustrated above in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

Furthermore, as illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point

circumference relating line **D**, as illustrated above in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference **(D)** relating to an inflated state is actually greater than the center point circumference **(C)** relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates, through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having a specific circumferential constriction value decrease of 36% upon inflation of the intra-compartment cells, as is explicitly set forth in amended dependent claims 30, 113, and 123.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended dependent claims 30, 113, and 123, the specifically claimed circumferential

constriction value decrease of 36%.

P. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 74, 81, 84, 86, 88, 93 & 98

With respect to dependent claims 74, 81, 84, 86, 88, 93, and 98, the claims set forth a specific inflated to deflated circumferential ratio value of about 0.64. In contrast, as set forth above, JP 9-182,711 teaches intra-cell compartment center point circumferential expansion, thereby establishing an inflated to deflated circumferential ratio value of greater than 1.0, and non-compartmental bond movement during inflation to enable the taught device to apply pressure to a body limb.

More specifically, as illustrated in Figure 2 of JP 9-182,711, the center point of the deflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **A**, as illustrated above in Figure '711A, so as to form an approximate first center point circumference relating line **C**, as illustrated above in Figure '711A.

Furthermore, as illustrated in Figure 3 of JP 9-182,711, the center point of the inflated intra-cell compartment, formed by shells **3** and **4**, is approximately located at point **B**, as illustrated above in Figure '711B, so as to form an approximate second center point circumference relating line **D**, as illustrated above in Figure '711B.

In both illustrations, Figure '711A and Figure '711B, the approximate center point circumferences are illustrated to clearly demonstrate the inflated/deflated center point circumferential dimensional relationship dimensional relationship. As can be seen by the original Figures 2 and 3 of JP 9-182,711 and as highlighted by the annotated Figures '711A and '711B, the center point circumference **(D)** relating to an inflated state is actually greater than the center point circumference **(C)** relating to a deflated state.

Furthermore, JP 9-182,711 teaches the formation of compartmental bonds by welding the exterior side member **3** and interior side member **4** while leaving an unwelded area to form air passage **6**, as illustrated in original Figure 3 of JP 9-182,711. JP 9-182,711 further teaches the welding of the exterior cover **2** to the exterior side member **3** at weld **5**, as illustrated in original Figures 2 and 3 of JP 9-182,711. Moreover, JP 9-182,711 teaches that exterior cover **2** is rigid, and the exterior cover **2** does not move during inflation. Thus, JP 9-182,711 demonstrates,

through the combined teachings of the rigidity of the exterior cover **2** not moving during inflation and the compartmental bonds being welded to the exterior cover **2**, that the compartmental bonds remain stationary during inflation, and thus, the compartmental bonds of JP 9-182,711 are not, during inflation, drawn to each other, nor drawn to the center point of the intra-cell compartment.

Thus, to combine the teachings of JP 9-182,711 with the teachings of Whitney and Peeler et al., as suggested by the Examiner, would clearly teach one of ordinary skill in the art to design a pressure sleeve with intra-cell compartments such the center point circumference of the intra-cell compartments when the intra-cell compartments are inflated is greater than the center point circumference of the intra-cell compartments when the intra-cell compartments are deflated and with compartmental bonds that would be stationary during inflation.

This clearly teaches away from the claimed invention of having a specific inflated to deflated circumferential ratio value of about 0.64, as is explicitly set forth in amended dependent claims 74, 81, 84, 86, 88, 93, and 98.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended dependent claims 74, 81, 84, 86, 88, 93, and 98, the specifically claimed inflated to deflated circumferential ratio value of about 0.64.

Q. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 94, 95, 99-101, 120, 121 & 126-128

With respect to dependent claims 94, 95, 99-101, 120, 121, and 126-128, the claims set forth a control device that determines a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

In formulating the present rejections of dependent claims 94, 95, 99-101, 120, 121, and 126-128, the Examiner indicates that Whitney is silent with respect to teaching a control unit, but the Examiner alleges that the teachings of Peeler et al. meet this deficiency in Whitney.

Although Peeler et al. may teach a simple control system for controlling the inflation of pressure sleeves, Peeler et al. fails to teach or suggest a control unit that determines a treatment specificity of each cell, as is explicitly set forth in amended independent claim 135. Moreover,

Peeler et al. fails to teach or suggest a control unit that determines a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, as is explicitly set forth in amended dependent claims 94, 95, 99-101, 120, 121, and 126-128.

In summary, contrary to the Examiner's allegations, the proposed combination of Whitney in view of JP 9-182771 and Peeler et al. fails to teach or suggest, as set forth in amended dependent claims 94, 95, 99-101, 120, 121, and 126-128:

(1) the specifically claimed determination of the treatment specificity of each cell; and/or

(2) the specifically claimed determination of the timing sequence for inflating of each cell based on the determined treatment specificity of each cell.

R. ARGUMENTS WITH RESPECT TO AMENDED DEPENDENT CLAIMS 31-35, 39, 40, 78, 79, 89, 102, 108, 109, 114-119, 124, 125, 131, 132, 138 & 139

With respect to dependent claims 31-35, 39, 40, 78, 79, 89, 102, 108, 109, 114-119, 124, 125, 131, 132, 138, and 139, the Applicant, for the sake of brevity, will not address the reasons supporting patentability for each of these individual dependent claims, as these claims depend directly or indirectly from the various allowable independent claims for the reasons set forth above. The Applicant reserves the right to address the patentability of each of these dependent claims at a later time, should it be necessary.

Accordingly, in view of the amendments and remarks set forth above, the Examiner is respectfully requested to reconsider and withdraw this rejection of claims 29-36, 39, 40, 73-75, 78, 79, 81, 83-89, 92-95, 97-102, 105, 108, 109, 112-128, 131, 132, 135, 138, and 139 under 35 U.S.C. §103(a) as being unpatentable over Whitney in view of JP 9-182771 and Peeler et al.

VII. REJECTION OF CLAIMS 29-42 AND 73-141 UNDER THE DOCTRINE OF OBVIOUSNESS-TYPE DOUBLE-PATENTING

Claims 29-42 and 73-141 have been rejected under the doctrine of obviousness-type double-patenting over the claims 1-7 of US Patent Number 6,478,757. Moreover, claims 29-42 and 73-141 have been rejected under the doctrine of obviousness-type double-patenting over the claims 1-7 of US Patent Number 6,494,852. These rejections are respectfully traversed.

The Applicants have filed concurrently with this response a terminal disclaimer with respect to US Patents 6,478,757 and 6,494,852.

Accordingly, in view of the concurrently submitted terminal disclaimer, the Examiner is respectfully requested to reconsider and withdraw these rejections.

VIII. CONCLUSION

Accordingly, in view of the amendments and remarks set forth above, the Examiner is respectfully requested to reconsider and withdraw all the present rejections. Also, an early indication of allowability is earnestly solicited.

Attached to this Response is a clean version of page 1 of the Specification incorporating the above-presented amendment.

Respectfully submitted,

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